UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,459	07/24/2006	Patrice Robert	80193	2036

7590 01/16/2009

Eastman Chemical Company
Betty J Boshears
Building 75
100 North Eastman Road
Kingsport, TN 37660

EXAMINER	
JACOBSON, MICHELE LYNN	

ART UNIT	PAPER NUMBER
1794	

MAIL DATE	DELIVERY MODE
01/16/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/587,459	ROBERT ET AL.	
	Examiner	Art Unit	
	MICHELE JACOBSON	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/16/07, 7/24/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-9 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-17 of U.S. Patent No. 6,528,587. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the instant application recite the binder composition recited in U.S. Patent No. 6,528,587. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized this binder composition to adhere polymer layers as recited in the instant application.

3. Claims 1-9 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3-10 and 12-15 of copending Application No. 10/671758. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications claim structures comprising EVOH/tie layer/PET wherein the properties recited for the tie layer are the same. The tie layer claimed in the instant application also encompasses the more specific embodiments claimed in Application No. 10/671758.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat.

App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 4 recites the broad recitation "the content of the grafting monomer in the said blend being between 30 and 100000 ppm", and the claim also recites "preferably between 600 and 5000 ppm" which is the narrower statement of the range/limitation. Claim 4 also recites the broad recitation of the melt flow index "is between 0.5 and 30", and the claim also recites "preferably between 3 and 15 g/10minutes" which is the narrower statement of the range/limitation. Claim 4 also recites the broad recitation of the melt flow index of the blend of (A) and (B) "is between 0.1 and 15", and the claim also recites "preferably between 1 and 13 g/10minutes" which is the narrower statement of the range/limitation. For the purpose of examination, the claim will be interpreted to encompass the broader recitations of these properties. Claims 5-9 are rejected as being dependent from indefinite claim 4.

4. Claim 4 is also indefinite for failing to include units with the recitations of values for the density of metallocene polyethylene (A1) and non-metallocene LLDPE polyethylene (A2). For the purpose of examination, the densities recited will be

assumed to be values with the unit of g/cm^3 since this unit is used in Table 1 of the specification. Appropriate clarification is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robert et al U.S. Patent Application Publication No. 2001/0053821, now U.S. Patent No. 6,528,587 B2 used herein for reference (hereafter referred to as Robert) and Dupont et al. U.S. Patent No. 5,101,064 (hereafter referred to as Dupont).

7. Robert teaches a coextrusion tie (coextrusion binder; column 1, lines 7 - 9) which comprises polymer (A) which comprises 5 to 35% by weight of a polymer (A1) itself composed of a blend of 80 to 20% by weight of a metallocene polyethylene with a density of between 0.865 and 0.915 g/cm^3 and 20 to 80% by weight of a non - metallocene LLDPE polyethylene (A2) with a density between 0.900 and 0.950 g/cm^3 (column 3, lines 7 - 9); the blend of polymers being co-grafted by an unsaturated carboxylic acid, the content of the grafting monomer in the blend being between 600 and 5,000 ppm, and 95 to 65% by weight of a polyethylene (B), the total therefore

forming 100%, the blend of the polymers being such that its melt flow index is between 1 and 13 g/10 min. (column 1, lines 39-60)

8. The tie layer is recited to be useful in multilayer structures as an adhesive to bind together layers comprising polymers such as EVOH and polyester. (column 2, lines 7-14) These multilayer structures are recited to be useful for manufacturing flexible or rigid packaging, such as sachets, bottles of containers by methods that include coextrusion-blow molding

9. Robert is silent regarding the polyethylene homopolymer (B) having a melt flow index of between 0.5 and 30 g/10 min. However, Robert discloses that the melt flow index of the polyethylene homopolymer which is selected must produce a blend having a melt flow index of between 0.1 and 10 g/min (the blend has a melt flow index of between 0.1 and 10 g/min; column 1, lines 51 - 52).

10. Therefore, one of ordinary skill in the art would have recognized the utility of varying the MFI of the polyethylene homopolymer (B) to obtain the desired recited MFI of the blend. Therefore, the MFI of the blend would be readily determined through routine optimization of the MFI of the polyethylene homopolymer (B) by one having ordinary skill in the art depending on the desired use of the end product as taught by Robert et al. The obvious optimization of the MFI of the polyethylene homopolymer (B) would have produced a coextrusion tie layer composition as recited in claim 4. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use this composition to produce a container comprising EVOH/tie layer/polyester layer as disclosed by Roberts.

11. Robert is silent regarding the use of glycolised copolyester such as PETG as the polyester composition to be adhered with the tie layer composition recited.

12. The examiner takes official notice that PETG is a polyester compound well known in the art to find utility in bottle making applications as evidenced by Dupont which states "Terephthalate polyester resins like PET, CPET, PETG, PBT and PCT are thermoplastic polymers which are widely used in the plastics industry. PET and PETG are used in the manufacturing of film, bottles and plastic containers of all kinds". (column 1, lines 34-39)

13. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized PETG as the polyester resin for manufacturing a multi-layer structure such as a bottle comprising EVOH/optimized tie layer of Roberts/PETG since PETG is widely used in the bottle making industry. The obvious use of PETG in such a coextruded blow molded multi-layer bottle as recited by Robert would have produced the invention as claimed in claims 1-9.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHELE JACOBSON whose telephone number is (571)272-8905. The examiner can normally be reached on Monday-Thursday 8:30 AM-7 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. Lawrence Tarazano/
Supervisory Patent Examiner, Art Unit 1794

Michele L. Jacobson
Examiner /M. J./
Art Unit 1794